

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007723**Date Inspected:** 23-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Ying Xin, Zhen Bo, Li Lin			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Tower and OBG Components		

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in the bottom plate to floor beam clips between panel points 14~18 on segment 2AE in response to Bolting Inspection Notification Sheet No. 00040. ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Hu Mei Gang (QC1) using ZPMC calibrated wrench. No less than 10% of the ASTM A325 bolt sets at each connection were torque tested, with a minimum of one bolt set tested at each connection. QC1 provided this QA Inspector, George Goulet, with the following information regarding the bolt sets installed at this location. This QA Inspector, George Goulet, observed ZPMC's Bolt Test Log for SFOBB (RoCap list), listing the RoCap Set numbers, bolt set size, and the N.M test result for torque tightening purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM160001 – M16-2.0x45 – test result 210N.M

RC Set No. DHGM160016 – M16-2.0x65 – test result 180N.M

The torque of the above noted bolt sets were verified by torque testing with the above noted calibrated wrench with the wrench setting displayed as above except that the 180N.M bolt sets were tested at 200N.M, the wrench minimum setting. This QA Inspector, George Goulet, concurred with QC1 for the issuance of green tag numbers.

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Bay 10

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 10:

SMAW welding of weld joint SSD1-FASA4-1E/E-99A located on PCMK south tower, lift 4, skin A. Welder was identified as 052930. ZPMC QC was identified as CWI Chen Ying Xin (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao, who was not a CWI. The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-B-T-3211-Tc-U5b-1.

Bay 11

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11:

SAW welding of weld joints WSD1-FASA4-4A/F-8B-2, 11 located on PCMK west tower, lift 4, skin A. Welder was identified as 202756. ZPMC QC was identified as CWI Zhen Bo (QC3). The welding variables recorded by QC3 appeared to comply with WPS-B-T-2221-B-U3B-S-2 for the CJP weld and WPS-B-T-2321-B-P3-S-2 for the PJP weld.

SAW welding of weld joints WSD1-FASA4-4A/F-12B-2, 15, 17B located on PCMK west tower, lift 4, skin A. Welder was identified as 044558. ZPMC QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2221-B-U3B-S-2 for the CJP welds and WPS-B-T-2321-B-P3-S-2 for the PJP weld.

SAW welding of weld joints WSD1-FASA4-4A/F-20, 22B located on PCMK west tower, lift 4, skin A. Welder was identified as 040634. ZPMC QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2221-B-U3B-S-2 for the CJP weld and WPS-B-T-2321-B-P3-S-2 for the PJP weld.

SMAW fit-up and tack welding of fit lug weld joints ESTL3-4I/K-111, 110 located in PCMK east tower shaft, lift 3, skin D. Welder was identified as 255865. ZPMC QC's were identified as CAWI Liu Dao Feng (QC4) and CWI Li Lin (QC5). The welding variables recorded by QC4 and QC5 appeared to comply with WPS-B-T-4113 and WPS-B-T-2112.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above, and QC1 informed this QA Inspector, George Goulet, of the above noted Ro Cap bolt set numbers, bolt set sizes, locations of installation, and previously tested torque values relevant to the inspection being performed.

Also, this QA Inspector, George Goulet, asked each QC monitoring the welding if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. QC showed this QA Inspector, George Goulet, that QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC observed did appear to comply.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
